

## VALPLAST® CS

### Product Description

VALPLAST® CS is an environmentally friendly, highly stable, single component, ultra-low viscosity colloidal silica primarily used for injection into sands, silts, and fine joints and fissures in rock strata. VALPLAST® CS is available in three grades with varying SiO<sub>2</sub> content. By adjusting the accelerator dosage it can be used where very slow migration and penetration capabilities are required.

### Characteristics / Advantages

- Single component,
- low viscosity
- Good adhesion to wet surfaces
- Solvent-free and environment friendly
- Adjustable gel time
- Standard grouting equipment can be used
- Can clean with water
- Pre-injection of rock, sand and silt strata
- Consolidation of soil
- Tunnel waterproofing and leak sealing
- Passive ground stabilization

### Technical Parameters

| Subject                     | Valplast CS 15 | Valplast CS 30 | Valplast CS 40 | Valplast accelerator |
|-----------------------------|----------------|----------------|----------------|----------------------|
| Form                        | Liquid         | Liquid         | Liquid         | Liquid               |
| Density(g/cm <sup>3</sup> ) | 1.1            | 1.2            | 1.3            | 1.07                 |
| Viscosity (cP)              | 13             | 5              | 16             | 2                    |
| SiO <sub>2</sub> (%)        | 15             | 30             | 40             | -                    |
| pH Value                    | 9 - 10         | 9 - 10         | 9 - 10         | 6 - 7                |

\*Values can vary site to site as per the conditions

### How it Works?

Pre-determine the required gel time of Valplast CS. Results based on Valplast CS 30 with accelerator solution fixed at 10% and ambient temperature of 26°C.

| Accelerator                | 15%     | 20%     | 25%    | 30%    |
|----------------------------|---------|---------|--------|--------|
| Volume by weight of Part A | 15%     | 20%     | 25%    | 30%    |
| Gel time achieved          | 260 min | 100 min | 60 min | 30 min |

Add the required dosage of accelerator to the Valplast CS whilst agitating and ensure it is well mixed prior to commencement of injection.

Avoid over mixing (2 minutes is sufficient). Pump the Valplast CS uniformly through an injection packer using any kind of grout pump, such as a mono type, diaphragm type or piston type pump.

**Storage**

Store away from frost and heat in a dry area. It is sensitive to moisture and temperature. Reseal when partly used, by covering with nitrogen.

Storage temperature is between 10°C and 30°C. Shelf Life – 1 Year approx.

**Safety**

Avoid to breathe dust/fume/gas/mist/vapours/spray. If required, wear respiratory protection. Always wear protective gloves/clothing and eye/face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if on skin or hair: Remove all contaminated clothing immediately. Rinse skin with water or takeshower.

**Legal Notes**

All data in our product information are based on our current knowledge and experience. They do not release users from careful testing of the application and strict observation of the relevant processing regulations because of the wide range of possible influences during the application and use of our products. Legally valid assurances of specific characteristics or suitability for special purposes of application other than those provided in our documentation for the specific product cannot be inferred from our information. The recipient or processor of our products at their own responsibility must follow any protective rights or existing laws and provisions. Moreover, our general terms and conditions of sale and warranty are valid.

